

school partnerships

Terrawatu has received a grant from Seeds for Africa in the United Kingdom (www.seedsforafrica.org) to provide four primary schools in Arusha region with seeds, tools, and advice for creating school gardens on their lands. On 14 May, Terrawatu Co-Directors met with the head-teachers of Ilboro, Natema, Ilkidin'ga and Olosiva Primary Schools in Arumeru District and discussed the school garden project (*Inosa Anguluwoni* – “the earth gives us everything we need” in Maa). We provided context for the initiation of this activity by explaining: the threat and problems with increasing appearance of genetically modified seeds (GM) into the local market; the health and ecological benefits of organic farming; the importance of re-introducing nutritious foods into children’s diets that have become dominated by Coca Cola and poorly-manufactured white “cotton” bread; and the benefits of “hands-on” education in schools. We also surveyed the allotted spaces for the gardens and assessed access to water and protection from livestock grazing and other foot traffic. All of the teachers expressed enthusiasm and have since discussed the project with their students. Three schools have already selected their seeds of choice and have planted their first gardens. Olosiva Primary School has concluded that they do not have access to enough water during the dry season and would not be able to properly care for the garden. Terrawatu is currently surveying other schools in the area for selection of a fourth site.

Construction of the additional classrooms at Natema Primary School has stalled due to lack of funds. The Terrawatu school partnership team is actively searching for individuals and organizations that are willing to help complete the classrooms in a timely manner. New photos of both the school gardens and classroom construction can be viewed on our website at: www.terrawatu.org/adopt_a_school.htm.

cross-cultural exchanges

On 7 April, Terrawatu and local cultural organization, Aang Serian, orchestrated an informational session and fieldtrip to Maasailand for participants of the Association of Social Anthropologists of the Commonwealth (ASA) Annual Conference in Arusha. Entitled “The Challenges when Indigenous Meets Modern”, the day’s activities included discussion about our organizational missions and projects, a journey to Kirurum Village, a medicinal plant walk, and participation in a goat slaughtering ritual. A few visitors did not hold back from full participant observation and tasted some of the warm goat’s blood with the warriors.

If viewing a goat roasting ritual is not your cup of tea, but sipping a deep, red South African wine while overlooking Ngorongoro Crater is, why not consider visiting us here in Tanzania? To receive more information about Terrawatu’s customized ecological-cultural safaris into the wildlife areas and indigenous communities of northern Tanzania, and/or to find out dates for a future journey, send us an email at journeys@terrawatu.org.



Organizational News

Terrawatu held its Annual General Meeting on 15 June. Over eighty-percent of the East African members were in attendance as well as one of our International Advisory Council members. In addition to discussing the status of our current projects, a vote was held to create a Board of Directors that would play a more active role in the activities of the organization. The members of the Board of Directors are: Abraham Lengai, Lilian Titos, Onesmo Kishapuy, and Lodi Larashi. We look forward to working together.

Co-Directors Tanya Pergola and Lekoko Ole Sululu, will be in the United States during the month of July, proceeding with organizational development and speaking about Terrawatu’s work in Tanzania. To make an appointment and/or to hear a listing of our speaking engagements call Tel #: 1.206.226.3882.

Needs section

☉ *Funds for completing school construction* at Natema Primary School. Every brick counts! If you are interested in helping, please send a check, payable to "Tides Foundation/Terrawatu Fund" to the following address:

Terrawatu Fund
c/o Tides Foundation
Finance Department
PO Box 29903
San Francisco, CA 94129 USA

All contributions are tax-deductible in the United States. Thank you in advance for making this happen.

☉ *Supplies for partner schools.* As many of you know, school children in Tanzania have to share books, pens and notepads with five or more students. The books they do have are quite outdated and worn-out. If any of you have books (paperbacks please! in basic English, French, or Swahili) that you think would be interesting, educational and/or fun for children ages 5-14 and would like to share them with the students in our partner schools, do contact us. Pens and notepads are most welcome as well. Send us an email at info@terrawatu.org or give a ring at 1.206.226.3882 before the end of July.

☉ *Contributions for resource center.* The Medicinal Plant & Sustainable Development Resource Center is a collection of primarily academic literature covering the following subject areas: medicinal plants (with a focus on Tanzania and other African countries); indigenous knowledge (from all over the world); pharmacological evaluation of medicinal plants; global and local environmental movement activity; national and regional sustainable development policies; and, Maasai culture and current political issues effecting Maasai people. Users of this center are Terrawatu staff, international students and visitors working and studying in Arusha, and local people. If you have something to contribute to this growing collection contact us at offerings@terrawatu.org to let us know what you have and we will let you know the best way to get it to us (e.g. electronically or by post). Materials can be in English or Swahili.

Activist corner - what you can do from where you are

* The Earth Charter is a "declaration of fundamental principles for building a just, sustainable, and peaceful global society in the 21st century". Resulting from a decade-long, worldwide conversation, the drafting of the Earth Charter has involved the most open and participatory consultation process ever conducted in connection with an international document. The plan is to disseminate the Charter and its associated informational materials throughout all sectors of society to integrate its principles into the education, business, government, faith, and other civil society arenas. The Earth Charter Commission and Steering Committee are seeking endorsement of the document by the United Nations at the World Summit on Sustainable Development (WSSD), the tenth anniversary of the Rio Earth Summit, opening in Johannesburg, South Africa on 26 August. To learn more about the Earth Charter and how to get involved visit their place on the internet: www.earthcharter.org.





Recipe- East African specialties

Pilau of Zanzibar

adapted from The Congo Cookbook

The word *pilau* comes from the Persian word *pilav* or *pilaw*, which is also the origin of *pilaf*, as in “rice pilaf”. The *pilav* rice cooking technique is found throughout the Middle East and West Asia (i.e., Turkey, India, Pakistan). It has been spread across Africa by the Arabs, and was brought by enslaved Africans to the Americas. It is especially common in the Caribbean and Southern United States. In West Africa and the Americas the name has become *pearlu*, *perloo*, *perlau*, *plaw*, et cetera. Whatever the name, it is rice, vegetables, and meat cooked in a seasoned broth. Here is the Swahili way to make this ubiquitous rice dish. Here, we use only organic rice and vegetables and meat or fish that has been raised and procured in a manner that respects its biological traits and habitat. We hope you can too!

What you need

- ½ teaspoon cumin seeds
- ½ teaspoon whole black peppercorns
- several whole cloves
- one cinnamon stick (or a few pinches ground cinnamon)
- a few cardamom pods (or a few pinches ground cardamom)
- oil for frying
- several cloves of garlic
- 2 teaspoons fresh ginger
- 3 cups of rice (uncooked)
- 3 onions, chopped
- 2 pounds of either beef, chicken, or prawns, cut into bite-sized pieces
- 4 tomatoes, chopped
- 4 medium potatoes, peeled and cut into quarters
- 1 cup raisins or sultanas

What you do

- Combine cumin, peppercorns, cloves, cinnamon and cardamom and tied up in a small piece of cheesecloth or put in tea infuser. But in a teacup, cover with warm water and set aside.
- Pound the garlic and ginger together and set aside. Wash the rice, drain, and set aside.
- Heat oil in deep oven-proof pot. Fry onions until clear. Stir. Add garlic and ginger. Continue stirring and frying until the flavors have mixed — it should develop a nice aroma.
- Add the meat/fish, stir and cook over high heat until meat is browned on the outside. Reduce heat and simmer for a few minutes. Remove the meat and most of the onions, and set them aside. Add the rice and stir it thoroughly to coat each grain of rice with the oil. Add the spice bag and its soaking water. Stir. Wait five minutes. Add the tomatoes. Cover and simmer for a few minutes. Stir occasionally.
- Check every few minutes to see if more water is needed and add water (or broth) as necessary. Stir as liquid is added. After ten minutes add the potatoes and raisins and the meat and onions. Keep covered, keep checking, add water if bottom of pot is dry. Continue cooking over low heat for ten more minutes.
- Remove pot from stove, keep covered. Place entire pot in warm oven for an additional ten to twenty minutes. All moisture should be absorbed by rice and potatoes should be tender. Serve hot.



Checking Into A Bush Hospital **Gemma Burford**

In the final year of my undergraduate degree in biochemistry, I discovered the novel *Astonishing the Gods*, by the Nigerian author Ben Okri. It tells the story of a man who was born invisible, and his journeys through strange and wondrous lands in his quest for visibility. The passage that touched me most was a description of hospitals as places of song and dance, laughter and joy, whose aim was to prevent people from ever getting seriously ill. At the first sign of symptoms, they would admit themselves to hospital to improve their spiritual, mental and physical health. The contrast with the ultra-modern hospital where I was carrying out my lab project made me laugh out loud.

Twelve months later, during visits to Maasai communities in northern Tanzania, I began to discover that hospitals with the 'feel-good factor' aren't merely the product of an author's fertile imagination. Rather, they are a living reality that could help transform health care in industrialized countries. I wondered if we are ready for the revolution...

Now, in 2002, I'm writing this article by the light of a kerosene lamp. I'm in the Maasai village of Emairete, halfway through my MSc [MS] environmental anthropology research on the ritual of *orpul*. Orpul (often written as 'olpul') involves taking oneself and a group of friends off to a remote site in the forest or bush, to eat roasted meat and drink medicinal soup. It also includes songs, dances and prayers to God, who is known as 'Enkai' in Maa language. As the Danish anthropologist Nina Johnsen highlighted in 1996, orpul is far more than the 'meat camp' that other authors refer to. It can be more accurately described as 'the Maasai hospital'.

Laboratory tests carried out on some of the plants used in making soups at orpul have shown a wide range of pharmacological activities. Of eight plants identified from an orpul soup that I tasted, six have already been documented as having medicinal properties. To take just one example, the best-known orpul medicine, *orkiloriti* (*Acacia nilotica*) has been demonstrated to kill certain bacteria, fungi, viruses, amoeba, worms and malaria parasites. It also protects the liver, reduces fever and pain, and modulates the immune system. Many of these properties are significant in the context of the much-discussed HIV/AIDS epidemic in Africa. Although orpul is unlikely to offer a 'cure' for AIDS, both fighting opportunistic infections and stimulating the immune system can enhance the quality of life of AIDS patients and increase their lifespan.

Orpul has also provided an answer to what was once known as the 'Maasai paradox': how a tribe subsisting on blood, milk and meat could maintain a low incidence of coronary heart disease, when all available evidence suggested that saturated fat caused heart attacks. Research carried out by Professor Timothy Johns of Canada in 1999 has shown that many of the plants used by Maasai in medicinal soups at orpul contain high levels of saponins and other compounds that help to reduce blood cholesterol levels.

While most of the pharmacological research to date has focused on single plants, or even single compounds isolated from them, orpul soups are always complex mixtures. A single soup may include parts from as many as ten or fifteen plant species, each containing dozens of potentially 'active' ingredients. Orpul is thus a sophisticated example of the 'combination therapy' that biomedicine claims to have pioneered, in which different compounds work together synergistically (enhancing each other's effects) to prevent the development of drug resistance among the bacteria, viruses or parasites being targeted. Even the other components of the soup, such as meat, fat and the stomach contents of the slaughtered animal, may make an important contribution to the medicine, since the livestock are themselves fed on a diet of local plants.

Where biomedicine separates body, mind and soul – often dismissing the concept of soul altogether – Maasai medicine recognizes their unity. It also has parallels with Western psychotherapeutic techniques, such as family therapy and self-help groups, in that the concept of 'health' is extended beyond the individual to the level of the community as a whole. Even if only one person is sick, there are usually six to ten participants in the ritual, each contributing one of their own animals for slaughter. It is considered essential for children to attend, so that they can deepen their knowledge of medicinal plants and involvement in the community. Orpul is also commonly used by women to gain strength after giving birth, and in this case, three or four women – with their young babies – are accompanied by their husbands or other close male relatives.

This holistic approach to health, which reaffirms the individual's place in society, is common to many indigenous systems of medicine – particularly in Africa. Yet orpul is distinctive in that it adds another dimension: reinforcing the relationship between human beings and the natural environment. *Orpul* is held at secluded forest or bushland sites, with shade, permanent water and a high concentration of medicinal tree species. Participants stay up to two or three months at these sites, sleeping on a bed of scented *osendu* leaves (*Tarchonanthus camphoratus*) and protected from wild animals by a fence built from thorny branches. The importance of the human-environment relationship is highlighted by special 'orpul songs' which praise the efficacy of medicinal trees, tell stories of encounters with animals, and list the birds of the forest. One bird's call is said to resemble the Maa word for 'medicinal soup', *emotori*; another's name translates as 'the-one-of-the-orpul-sites', because of its fondness for scraps of meat left over in these places.

According to Maasai customary law, the trees surrounding orpul sites should not be cut at all, although in the case of medicinal trees, cutting one small branch or root for use in the treatment is permissible. Breaking these laws is punishable by beating and/or a fine, as agreed in a community meeting. Yet, as young people increasingly lose interest in orpul, preferring to sell livestock to participate in the cash economy rather than slaughtering them in the forest, many sites are being forgotten and thus losing their protected status. As an elderly woman in Emairete explained to me last week: "In the place where I used to go to orpul as a child, most people don't even know that it was once an orpul site. Many of the trees have been cut down for charcoal. In the past, we never had that business."

To me, it seems that there is something askew with a world in which modern hospitals - where people are isolated from friends, family and environment, and treated as machines with malfunctioning parts – are classified as the pinnacle of 'development', while integrative approaches to health care are quite often dismissed as 'primitive superstitions'. Of course, no Maasai can claim to have the answers to all health problems; but, then again, neither can biomedical doctors. According to a Maasai proverb, *one head can't contain all wisdom*. After decades of wringing their hands and bewailing the terrible fate of the 'lost continent', plagued by poverty and disease, how many Western leaders are showing that they have the courage to step back and learn from Africa?

Gemma Burford holds a Masters of Biochemistry from Oxford University and is the Co-Founder of Aang Serian, a cultural organization based in Tanzania. She is currently completing a Masters in Environmental Anthropology at the University of Kent, Canterbury, UK and is volunteering with Terrawatu from April-July 2002.





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Recognize that peace is the wholeness created by right relationships with oneself, other persons, other cultures, other life, Earth, and the larger whole of which all are a part.

- The Earth Charter, 16(f)

